

Claims

1. An apparatus comprising:
a thermally conductive plate to be placed in contact with a heat generating device; and
a fluid loop coupled to the plate to circulate fluid and have the fluid absorb heat from the plate, the fluid containing nanoparticles.
2. The apparatus of claim 1, wherein the fluid loop is coupled to a heat exchanger.
3. The apparatus of claim 1, further including a pump to circulate the fluid through the fluid loop.
4. The apparatus of claim 3, wherein the pump is a magnetic pump.
5. The apparatus of claim 4, wherein the magnetic pump is an electro-magnetic pump.
6. The apparatus of claim 1, wherein the plate includes a set of micro channels to receive the fluid from the fluid loop.
7. The apparatus of claim 1, wherein the nanoparticles are selected from a group comprising of copper, iron, gold and ceramic.

8. The apparatus of claim 4, wherein the nanoparticles include magnetic nanoparticles.
9. The apparatus of claim 4, wherein the fluid loop is a single phase fluid loop.
10. The apparatus of claim 4, wherein the fluid loop is a two phase fluid loop.
11. The apparatus of claim 1, wherein the fluid is deionized water.
12. The apparatus of claim 4, wherein the heat generating device is selected from a group comprising of a processor, a chipset, a graphics controller, and a memory controller.
13. A system comprising:
 - a heat generating device; ✓
 - a thermally conductive plate in thermal contact with the heat generating device; and
 - a fluid loop coupled to the plate to circulate fluid and have the fluid absorb heat from the plate, the fluid containing nanoparticles.
14. The system of claim 12, wherein the fluid loop is coupled to a heat exchanger.
15. The system of claim 12, further including a pump to circulate the fluid through the fluid loop.

16. The system of claim 15, wherein the pump is a magnetic pump.
17. The system of claim 16, wherein the magnetic pump is an electro-magnetic pump.
18. The system of claim 12, wherein the plate includes a set of micro channels to receive the fluid from the fluid loop.
19. The system of claim 15, wherein the nanoparticles are selected from a group comprising of copper, iron, gold and ceramic.
20. The system of claim 15, wherein the nanoparticles include magnetic nanoparticles.
21. The system of claim 16, wherein the fluid loop is a single phase fluid loop.
22. The system of claim 16, wherein the fluid loop is a two phase fluid loop.
23. The apparatus of claim 12, wherein the fluid is deionized water.
24. The system of claim 16, wherein the heat generating device is selected from a group comprising of a processor, a chipset, a graphics controller, and a memory controller.

25. An apparatus comprising:
- a thermally conductive plate to be placed in contact with a heat generating device;
 - a fluid loop coupled to the plate to circulate the fluid and have the fluid absorb heat from the plate, the fluid containing nanoparticles;
 - and an electro-magnetic pump to circulate the fluid through the fluid loop.
26. The apparatus of claim 25, wherein the nanoparticles are selected from a group comprising of copper, iron, gold and ceramic.
27. The apparatus of claim 25, wherein the nanoparticles include magnetic nanoparticles.
28. The apparatus of claim 25, wherein the heat generating device is selected from a group comprising of a processor, a chipset, a graphics controller, and a memory controller.